What enhancements are being performed?

Iowa Communications Network's (ICN) *Bridging the Digital Divide for Iowa's Communities* $16.2 million Broadband Technology Opportunities Program (BTOP) grant will be used to improve ICN's 3,000-mile network infrastructure by increasing bandwidth with a 10 Gbps (gigabytes per second) capable backbone that will reach all 99 counties in Iowa. BTOP project allows the ICN to remove legacy equipment, streamline protocols used on the Network to simplify troubleshooting and maximize available throughput, provide additional bandwidth to edge sites and counties, and cost effectively bring authorized users to the network at the bandwidth capacity their applications require.

What is BTOP?

The American Recovery and Reinvestment Act provided the Department of Commerce's National Telecommunications and Information Administration (NTIA) and the U.S. Department of Agriculture's Rural Utilities Service (RUS) with $7.2 billion to expand access to broadband services in the United States. NTIA administers BTOP within three project categories: deployment of broadband infrastructure, enhance and expand public computer centers, and encourage sustainable adoption of broadband service. For additional information about BTOP visit http://www2.ntia.doc.gov/.

How many sites will ICN's upgrade affect?

Almost 1,000 installations over the course of a two-year period will impact 450 new sites, over 560 direct locations, and indirectly enhance 3,081 locations.

What does this mean to my site?

Through this federal grant, ICN has the capability to enhance the connections and provide more bandwidth capacity between the ICN and sites. Sites will have the capability to move from DSL speeds or less to the capacity of 1 Gpbs at the endpoints.

What long-term or short-term obligations are there for the site to consider?

The funding will be through ICN's federal BTOP grant and ICN's $7.6 million in required matching funding. There will be monthly recurring charges to ICN's customers, which will depend on the bandwidth and service provided by ICN.

What if the site moves? Will the site then incur the costs of the move?

Any relocation costs are at the expense of ICN's customers. If a State of Iowa agency is located in a county office building, the relocation expense is charged to the state agency, not the county.

What county sites will be affected by this upgrade?

The county sites affected are determined by where they are within the geographical area of Iowa. By law, Chapter 8D of the Code of Iowa refers to ICN not authorized to provide services to counties; however state agencies operating within county offices and Clerks of Court offices are authorized, and reside in many of the county offices.

The connections include, but may not be limited to, the Iowa Department of Transportation (DOT) for the Treasurer's Office, the Clerk of Court connecting to the Judicial Department, the communications center connecting to the improved 911 network and the Iowa system, Department of Human Service (DHS) connecting to additional DHS offices, and in some locations, Iowa Workforce Development and Vocational Rehabilitation connecting to their respective state offices. A location will be selected for the state agencies operating within county offices to connect into the point of presence into the courthouse.

What installations/upgrade(s) will ICN perform?

Many Part I and Part II sites * (county endpoints, university endpoints, the Iowa Public Television endpoint, and the State Capitol Complex endpoint) will have additional equipment installed as well as aggregation switches to combine all the new connections to the Part III locations (K-12 Schools, libraries, AEA). These are larger capacity switches, with the ability to provide up to 10 Gbps to each county. The upgrade will include a switch install and may include migrating existing services at the location to the new equipment.

Most Part III sites * (K-12 Schools) will have additional equipment added to provide increases previously unavailable. The new edge switches can provide up to 1 Gbps of data services. The upgrade will include a switch install as well as migrating existing services to the new equipment.

* While the capabilities of the two categories of switches are different, the installation process is essentially the same for both. ICN has been using these switches for several years, and has the necessary experience through multiple deployments to address any issues that may arise during the installation and migration.

The vast majority of these installations will go into existing racks in the ICN space, and should have little to no impact on the room configuration. To streamline the installation process, initially an install team will complete any installation, and a second migration team will move the services at a later time. A maintenance window will be established for the migration team to perform their work, as it will require an outage to complete.

A third category of equipment is being installed at less than 50 core locations to provide increased bandwidth to existing sites and to the sites being added by BTOP. These installations will be done with a combination of ICN technicians and installers provided by the equipment vendor. In most cases, the new equipment will

be installed and tested, with traffic migration to follow. Using vendor technicians for the installation allows the ICN to gain the knowledge of this new core equipment while still allowing for an expeditious installation by experienced installers who have done similar installations in the past. This will affect most circuits on the network. A maintenance window will be established for the migration team to perform their work, as it may require an outage to complete.

Who will be funding the upgrade(s)?

The funding will be through ICN's federal BTOP grant ($16.2 million) and ICN's $7.6 million in required matching funding. Customers will not be required to fund any portion of the equipment upgrades.

How soon will this work occur?

Implementation of this project has begun in the state. We will be informing customers about the work that will be required to accomplish the improvements at each of your locations. ICN will advise a contractor regarding the location for the installation of service in your site. The next step is to coordinate with the respective state department and your office to arrive on-site to connect the service to the equipment. A professional engineer will need to visit the office, and determine if existing building entry points (conduits and innerducts) can be used. In addition, the engineer will plan the route through the city to the ICN endpoint.

The efforts may mean the need for technicians to gain access to the facility, the installation of new equipment at the site or, possibly, short network outages.

Will my site experience any outages and/or disruption?

ICN will do its best to provide specific details with as much advance notice as possible regarding the work being done and how it will affect your organization. If, as part of the upgrade process, planned outages are required, we will inform the appropriate personnel of dates, times, and durations as soon as they are scheduled; usually a couple of weeks in advance. If outages do become necessary, we expect them to have minimal impact. At this time, we do not expect any outages to be longer than several minutes.

For additional questions, who can I contact?

To learn additional information about ICN's federal broadband grant visit www.icn.state.ia.us/broadband. If you have questions, concerns, or comments, contact Phil Groner at *phil.groner@iowa.gov* or call him at 515-725-4761.